Instagram Database

**Slide-1**

**Slide 1: Introduction**

Introduce the case study and provide an overview of Instagram and its importance in the social media landscape.

Explain the need for a database management system and why Instagram chose PostgreSQL.

**Slide 2: Instagram Database Architecture**

Explain the high-level architecture of Instagram's database.

Discuss the different types of databases used by Instagram, such as PostgreSQL for relational databases.

**Slide 3: Instagram's Use of PostgreSQL**

Explain why Instagram chose PostgreSQL as their primary relational database management system.

Discuss the advantages of using PostgreSQL for Instagram's use case.

**Slide 4: Scaling with PostgreSQL**

Discuss how Instagram scales their database using PostgreSQL.

Explain the sharding technique used by Instagram to distribute the database across multiple servers.

**Slide 5: Data Modeling with PostgreSQL**

Explain how Instagram models their data using PostgreSQL.

Discuss the use of tables, columns, and relationships to organize and store data.

**Slide 6: Data Consistency with PostgreSQL**

Discuss the importance of data consistency in a social media platform like Instagram.

Explain how PostgreSQL ensures data consistency through its transaction management features.

**Slide 7: Backup and Recovery with PostgreSQL**

Explain how Instagram ensures the integrity of its data by performing backups regularly.

Discuss how PostgreSQL's backup and recovery features help with this process.

**Slide 8: Performance Monitoring with PostgreSQL**

Explain how Instagram monitors the performance of their PostgreSQL database.

Discuss the tools and techniques used to identify and fix performance issues.

**Slide 9: Security with PostgreSQL**

Discuss the importance of security in a social media platform like Instagram.

Explain how PostgreSQL's security features are used to protect Instagram's data.

**Slide 10: Conclusion**

Summarize the key points discussed in the presentation.

Discuss the importance of database management systems in modern-day social media platforms.

**Demo2**

Slide 1: Introduction

* Introduce the case study topic: Instagram's use of PostgreSQL for its database management.
* Provide an overview of Instagram and its user base.

Slide 2: Instagram's Data Management Challenges

* Discuss the challenges Instagram faced with its previous database management system.
* Explain why Instagram chose PostgreSQL as its new database management system.

Slide 3: PostgreSQL Overview

* Provide an overview of PostgreSQL and its features.
* Explain why PostgreSQL was a good fit for Instagram's needs.

Slide 4: Instagram's PostgreSQL Database Architecture

* Discuss Instagram's PostgreSQL database architecture.
* Provide a visual representation of the architecture.

Slide 5: Instagram's Data Model

* Discuss Instagram's data model.
* Provide a visual representation of the data model.

Slide 6: Instagram's Use of PostgreSQL Features

* Discuss the specific PostgreSQL features that Instagram uses.
* Provide examples of how these features are used.

Slide 7: Benefits of Using PostgreSQL

* Discuss the benefits that Instagram has experienced since switching to PostgreSQL.
* Provide specific examples of these benefits.

Slide 8: Challenges of Using PostgreSQL

* Discuss the challenges that Instagram has faced since switching to PostgreSQL.
* Provide specific examples of these challenges.

Slide 9: Future Plans for Instagram's Database Management

* Discuss Instagram's future plans for its database management system.
* Explain how these plans will improve Instagram's user experience.

Slide 10: Conclusion

* Summarize the key points of the case study.
* Conclude with your thoughts on Instagram's use of PostgreSQL and its impact on the company.